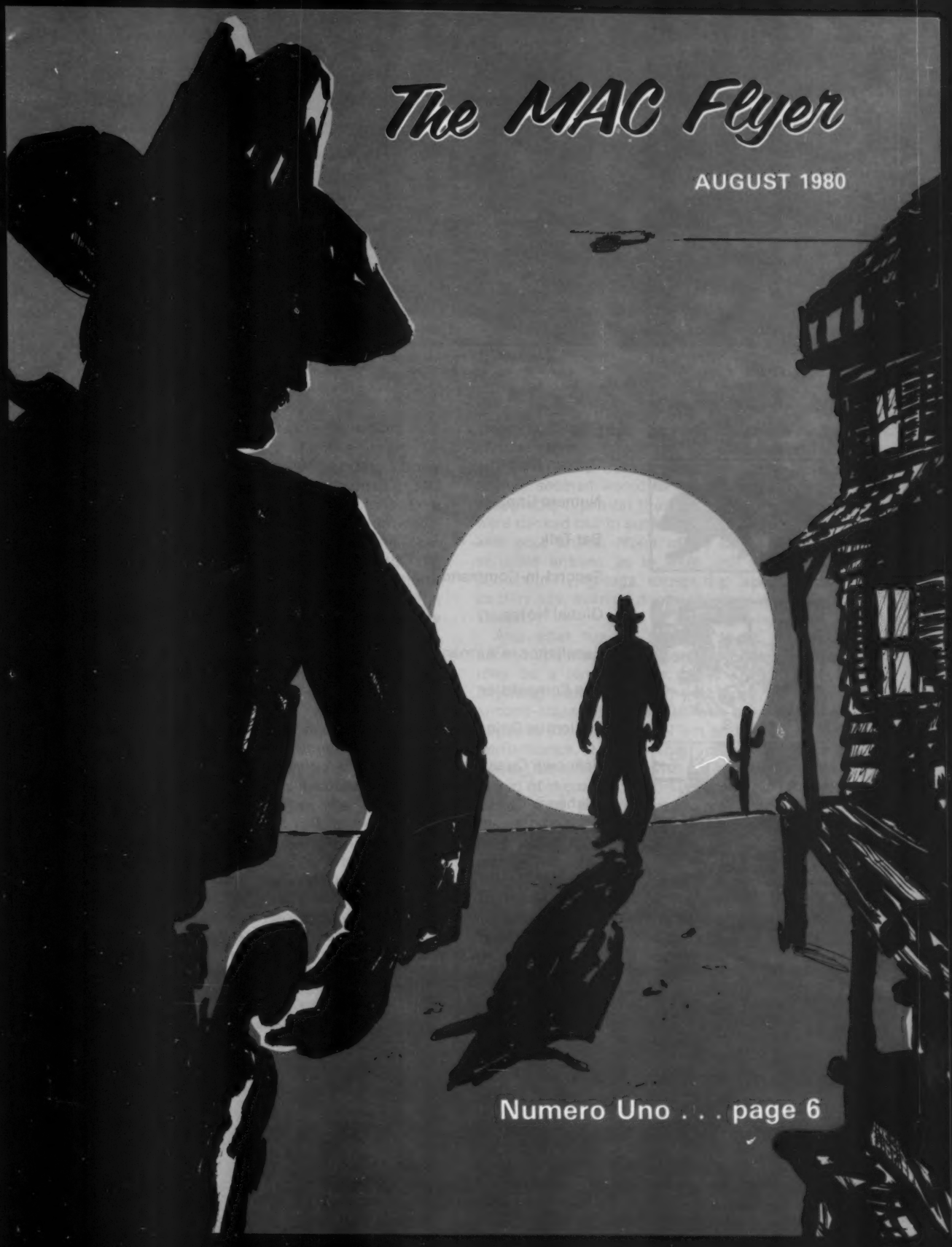

The MAC Flyer
AUGUST 1980
Numero Uno . . . page 6

The MAC Flyer

MILITARY AIRLIFT COMMAND

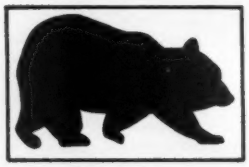
GEN ROBERT E. HUYSER Commander in Chief
LT GEN THOMAS M. RYAN, JR. Vice Commander in Chief
COL WILLIAM E. OVERACKER Inspector General
COL LOUIE O. McFERON Director of Safety

THE STAFF

MAJ JAMES G. GIBSON II Supervising Editor
MAJ ALAN D. YORK Associate Editor
CAPT JAMES P. COE Associate Editor
LORENA M. GRAUL, CPS Managing Editor
TOM O'LAUGHLIN Art Director

For Greater Safety and Efficiency in MAC Air Operations.

August 1980 MACRP 127-5 VOL XXVII, NO. 8



page 4

page 9

page 25

Flyer Forum 3
Golden Bear 4
Numero Uno 6
Bar Talk 9
Second-In-Command 11
Global Notes 14
Excellence in Airmanship 15
The Competition 16
Ludicrous Onloads 18
Unknown Quantity 19
Mishap with a Moral 22
Deja Vu: Hickam AFB 24
C.R. Terror 25
Quick Stoppers 28

The MAC Flyer is published by the Directorate of Safety, Military Airlift Command, and is authorized until 26 January 1980, unless authorized to continue before that date. The contents are informative and not regulatory or directive. All names of people and places in mishap stories are fictitious; photos of aircraft in mishap stories are representative and not necessarily of the airplane involved. No information in any article may be construed as incriminating under Article 31, UCMJ.

Contributions, comments and criticisms are welcome. Write: *The MAC Flyer*, HQ MAC/IGFE, Scott AFB, IL 62225; or call 618-256-3534, or autovon, 638-3534. The editor reserves the right to change manuscripts to improve them or correct technical errors.

Subscriptions are available from: The Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Price: $1.30 per copy, $15.00 per year (foreign address: $1.65 per copy, $18.75 per year.) MAC units establish requirements for this magazine through their publication distributor (DAPD). Other U.S. Military units should consult administrative directives. Changes of address for subscription mailing should be sent to GPO. Give old and new address, including zip codes.

Distribution F, X; OPR: HQ MAC/IGFE

ISSN 0024—788X

FLYER FORUM

A Hairy Situation

by Major James G. Gibson II
Supervising Editor

A unique form of aircrew discrimination was exposed recently by an EOT officer writing in a base newspaper. He told how his boss, whose most noticeable physical feature is a head of red hair, was not allowed to go on missions to a certain mid-east country because a crimson cranium implied a bizarre personality to the local folks there. After finding that they had to take missions to that country in his place, other pilots in the squadron began feeling that they were the ones being discriminated against because they didn't have red hair. "After all," added the human relations expert relating the incident, "Who wants to go TDY to a country that won't let Lucille Ball, Red Buttons or Red Skelton in?"

This story reminded me of another type of discrimination I, and I suspect many of you also, have experienced. It involves situations where a flight suit is not considered "fitting" attire even though we are on duty and it is the official uniform for doing our job. Sometimes the prejudices against flying coveralls seem silly and downright annoying, especially when it is *military* organizations or facilities that are doing the discriminating. A good case in point was the wardroom dining facility at Midway Island during the Vietnam war. If you happened to be handy during the wardroom's limited serving periods, and you wanted to partake of your repast while suited up in your Nomex (or K2B before fireproof greens were adopted), you had to eat like a social pariah behind a screen that isolated you and your offensive attire from the rest of the patrons. It always seemed ironic to me that many of those acceptable types on the other side of the screen were decked out in such debonair duds as cutoffs and polo shirts. None of us could ever get a sensible answer as to what was so unsuitable about our flying togs, except that "rules is rules," as they say, even on a remote island in the Pacific Ocean.

And what has all this got to do with flying safety, you may be thinking. Well, the connection may be a tenuous one, but I always felt that anything which relegated flightcrew members to second-class citizen status was bound to have a negative psychological effect and result in lower performance. I think that, other things being equal, crewmembers who believe the system is proud of them and is working to support them feel better and perform more professionally than crewmembers who perceive the system doesn't care about their needs or is possibly even going out of its way to downgrade their status or the status of aircrews in general. A petty annoyance to flyers may not be a big thing in and of itself, but it could conceivably be a "last straw" that starts a crew off on the wrong foot down a path which eventually leads to an accident.

Golden Bear

by Julius Alexander
Newsbureau, Lockheed-Georgia Co.

On a bright, sunny April day back in 1965, amid appropriate pomp and ceremony, the first C-141 was delivered to Travis AFB, California. This event marked the operational debut of the Starlifter and heralded a new era of all-jet, intercontinental military air transport. That first operational C-141, serial number 63-8088, was affectionately named the "Golden Bear" in recognition of the fact that its home base would be California.

Fifteen years later, Travis welcomed its first C-141B model and "Golden Bear" was returned to its birth place at Lockheed's Marietta, Georgia, plant. There the Starlifter will undergo the technological metamorphosis that adds over 23 feet to its length and provides it with an in-flight refueling capability.

During its 15 years as a C-141A, "Golden Bear" has been one of six Lead-The-Force (LTF) C-141s in MAC, which means it was chosen to fly an unusually large number of hours compared to the other Starlifters. The LTF program was designed to help identify mechanical problems in certain test airplanes before those same problems turned up in the rest of the fleet. Since it left the factory in 1965, "Golden Bear" has logged more than 27,500 hours and has flown an extremely wide variety of missions ranging from supporting the nation's space program to returning POWs from Hanoi. Its airlift exploits

Left: Ceremony in April 1965 marks delivery of the first operational C-141A to Travis AFB. Above: Starlifter number 38088, "Golden Bear," departs Travis for Lockheed-Georgia where it will be "stretched." Top right: Mr. N.C. Appold, V.P. for Lockheed-Georgia, talks with TSgt Richard Kemp, crew chief for "Golden Bear." Right: Maintenance "TLC" keeps 8088 in "showroom" condition.

photos courtesy of Lockheed-Georgia Co.

are representative of the tremendous airlift role played by the entire C-141 fleet during the last decade and a half.

Perhaps the person who knows "Golden Bear" best is TSgt Richard Kemp, an Air Reserve technician and the plane's crew chief for the past five years. "I was transferred from TAC where I was crew chief on a C-130 Hercules," says Kemp. "When I was assigned to this airplane, I went through its records and found that it was a special one . . . I always wanted the responsibility for something a bit special."

To anyone who has ever seen or flown on "Golden Bear," it's obvious TSgt Kemp and Sgt John Rothenberger, crew chief on the other shift, are downright fussy about "their" Starlifter. As far as they are concerned, the plane belongs to them personally while it's on the ground and they take a special measure of pride in being responsible for both its mechanical reliability and its outward appearance. From the shiny rails on the avionics rack to the highly polished engine domes and even special intake covers with the words, "Golden Bear," emblazoned on them, it's clear that this Starlifter is well cared for. "But the main thing is the maintenance," says Sergeant Kemp. "If there's a writeup, I try to fix it right the first time." That's probably why the aircraft and its maintenance crew have received so many sincere compliments from flight crews lucky enough to draw it for a mission.

Sergeant Kemp's ambition is for "Golden Bear" to achieve the highest total number of flying hours of any Starlifter. The other LTF C-141 at Travis (SN 63-8075) was assigned after extensive flight testing by Lockheed and has more total flying time than "Golden Bear." But as Kemp proudly points out, " 'Golden Bear' has the most operational hours as an in-service Starlifter." His goal is for his aircraft to take the lead in total hours as well.

After returning from Lockheed this fall as a C-141B, "Golden Bear" will remain a Lead-The-Force aircraft and if TSgt Kemp and the rest of the devoted maintenance folks at Travis have their way, C-141B, serial number 63-8088, will continue to be in the vanguard of airlift right into the 21st century.

Second Place, 1980 MAC Flying Safety Writing Contest

There's no substitute for experience—especially when it's enriched by knowledge.

NUMERO UNO

by Lt Col Clarence C. Campbell
1550 FTS, Commander
Kirtland AFB, New Mexico

He was called "The Old Man" by his pilots, not out of disrespect but because he was their leader and the eldest in the squadron. He had been in Rescue for many years and had flown every helicopter in the inventory since 1958. In most instances, he could give his fellow flyers the rationale behind some of the "overly restrictive" regs they had to operate by because he was there when those rules were written. As he sat looking out onto the flight line he felt comfortable about how far the service had come in 20 years. He'd seen a lot of improvement and was glad to have been a part of it.

There was also another name his men called him, although he felt that the burden of this title was almost too heavy to bear. They called him "Numero Uno." He acquired the designation shortly after reporting into the squadron. Instructors who flew with him were so amazed at his air knowledge and flying ability that they gave him this special place to occupy. But, time passed, and now his title was threatened by a young flight examiner from headquarters. The worry lines around his eyes deepened sharply as the thought of possibly busting this check ride ran through his mind. Not only would he lose the esteem of his young pilots, he would most probably be considered a has-been—another in the long list of commanders whose love of the flying game had been killed by management. Oh, there'd never be any open remarks about his failure, just the veiled references in the standardization meetings or the hushed comments as he prepared for a local flight.

He had been concerned about the check ride for weeks, and now his mind was even starting to play tricks on him. Just the evening before, while watching an old western movie on television, he found himself relating the plot to his very own predicament. In a climax familiar to horse-opera fans, the two gunfighters stood in a dusty street facing each other. One was the young punk trying to make a name for himself; the other was a former gunfighter who had tried to go straight, but was being goaded into proving his ability one more time. The scene was tense with the sun hanging in the sky like a searing ball of fire. Small beads of sweat trickled down both men's faces as each strained to detect the instant the other would go for his iron. Finally, the pressure became too great and the older man drew. The fates were against him this day and his .45 had not even cleared leather when he felt the searing pain in his chest and fell to the dusty street. Just before losing consciousness, he saw the young man standing over him, triumphantly slipping his Colt back into its holster, grinning as he did so. The colonel had been shocked back to reality by his wife reminding him to turn off the television and to put the cat out before coming to bed.

The path which led him here was clearly etched in his mind. He, too, had started his flying career as a young gunfighter, working his way to the top by outdrawing every challenger until no one would dare face him. He felt he was invincible. Seated securely on his invisible throne he was only occasionally required to demonstrate his flying talents. As the years passed, however, he found it harder and harder to prepare himself mentally for these challenges. He thought how remarkably the captain resembled the young gunfighter in the television movie the previous night. It was unnerving!

The first hour of flight at the aux field was uneventful. Just the same old normal, steep and shallow approaches, various

The young gunfighter lay face down in the street.

takeoffs and slide landings. The old man methodically and expertly went through the maneuvers, explaining each one before he did it.

Finally the young examiner remarked, "Let me take the controls for awhile. You're probably tired and besides, I want to show you a couple of things you may not have seen before in this bird."

The evaluator's takeoff was right by the book. The aircraft responded beautifully to his expert touch. As he turned final approach every gauge was wired in its proper position. The old man was impressed. Suddenly, the single engine gave a sickening groan and died. The nose swung sharply to the left and the low-rotor-rpm horn blared its ominous warning. The old man glanced at the examiner and immediately recognized stark terror in the young pilot's eyes. Years of experience told the colonel that if he didn't take some corrective action immediately, both of them would become statistics instead of more experienced pilots.

"I have the controls," the old man calmly spoke as he lightly placed his hands on the cyclic and collective and his feet on the rotor pedals. The young pilot relinquished control immediately. After setting up an autorotative descent toward a landing area, the old man made one last attempt to restore power to the failed engine. Satisfying himself that he would not be able to bring the engine back, the old gunslinger rotated the throttle to cutoff and concentrated on the forced landing. At approximately 75 feet, he flared the aircraft smoothly—decreasing his rate of descent to near zero, slowing his airspeed, and building precious rotor rpm. At 25 feet he expertly leveled the aircraft, slowly raised the collective and waited for the touchdown. As they sat on the ground with the rotor blades coasting down, he looked at the examiner who had started to regain some of the color in his face.

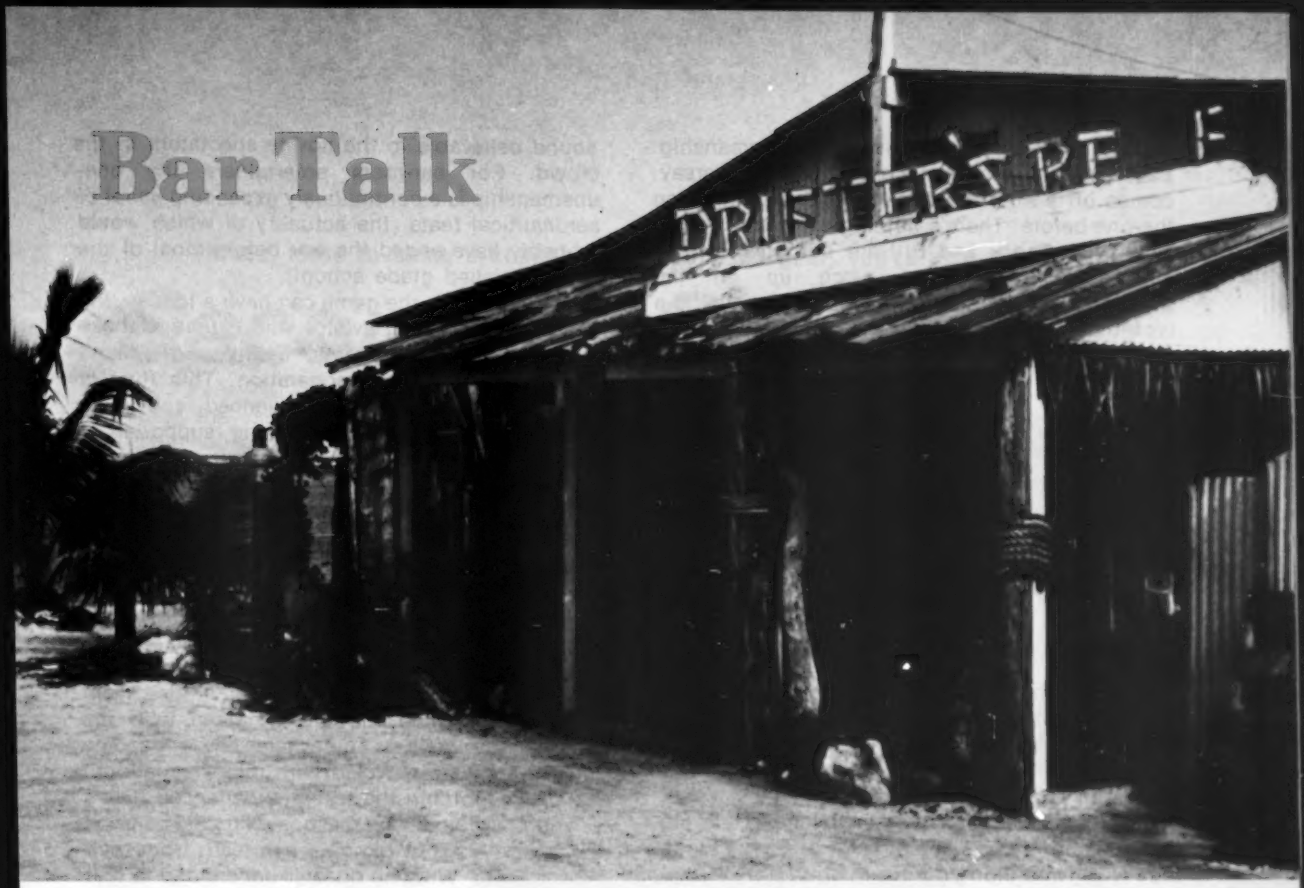
The young pilot finally remarked, "Well Colonel, no matter how the rest of the check ride goes, you've passed."

Back at the squadron word got around fast. There wasn't much of a debrief, and most of it centered around how the old man had saved the day. There were lots of pats on the back and "attaboys" from the pilots, and then once again he was sitting in his office looking out at the flight line. This time he had been lucky, he thought. The young gunslinger was the one lying on his back in the dusty street. This time the years of air experience had put the odds in the old man's favor. Oh, there'd be other times and other young gunslingers trying to work their way up the ladder. But he had to smile, even though he knew that his days were numbered, because for the time being, at least, he was still Numero Uno and everyone knew it.

ABOUT THE AUTHOR

A native of Alabama, Lt Col Campbell graduated from Auburn University in 1960 with a bachelor's degree in aeronautical engineering and an ROTC commission. After completing helicopter pilot training in 1961, he was assigned to ARRS flying the HH-43. Spending his entire career in Rescue, he has flown the HH-53, HH-3, and UH-1, in addition to the Pedro. His tour locations include Greenland, Iceland, Thailand and various stateside rescue detachments. From 1973 to 1977, he was assigned to Headquarters ARRS at Scott AFB where he worked in standardization and operational requirements, and was chief of combat tactics. Lt Col Campbell presently commands the 1550th Flying Training Squadron, which provides schooling for crewmembers coming into Rescue H-1s.

Bar Talk



Although it exists today only in the memories of MAC crewmembers who used to stop over at Wake Island during the 1950s and '60s, the Drifter's Reef probably witnessed as many war story sessions as just about any bar in the world.

Believing everything you hear can sometimes prove hazardous to your safety.

As the sun sinks slowly over the sandbox drop zones, some of the airlift wing's flyers gather at the local casual bar. Pilots and navs in their green bags are unwinding after the grind of a well-flown ORI. The younger aviators—the Funny New Guys (FNGs)—are engaged in a couple of the latest table-top computer games or tuned to conversations at the bar. Subjects run the gamut of human experience, but exploits with flying and the opposite sex are the main fare. An uninitiated lieutenant who walked in with his hat on has already bought a round of cheer and retreated to a corner to nurse his depleted check book . . . feeling slightly thankful that he learned the no-hats-on-in-the-bar custom during happy hour, but not on Friday night.

Then, a new person appears at the door dressed in fatigues. He looks around the room and his face breaks out in a cheerful smile when he hears his name shouted over the din, "Hey, Chuck, over here!"

"Bill, you ol' son-of-a-gun. What are you doing here?"

"Playing ORI games, of course. What's with the funny green jeans, Chuck? I thought you went to headquarters after the war."

"I did, but I'm back on the line fighting a different battle now as a maintenance officer."

"You flying any?"

"Only when they feel charitable and let me."

"Not like the good ol' days at Clark. You remember when we got 90 hours a month?"

"For sure. Flying just isn't what it used to be. Remember when . . . ."

"Remember when," typical first words of a war story. Our heroes are rehashing old times, the war, the flying and the people they knew. It happens all over the Air Force. They are also

starting a not-so-subtle game of one-upsmanship. Each account, real, exaggerated or just hearsay, comes off a little more exotic and exciting than the one before. There's nothing inherently wrong with what Chuck and Bill are doing. They will renew old friendships, catch up on the whereabouts of mutual acquaintances and build a type of esprit de corps in the process.

Rules for the war-story game are simple. First, each story must be more spectacular than the previous one. The second rule: if you've exhausted your own supply of real war stories, there's no restriction on using noncombat tales. Some flyers have peacetime experiences that are just as exciting as a LAPES run at Khe Sanh. Also the FNGs, who didn't get the "opportunity" to go to SEA, will find them equally interesting—and believable. However, you may have to enter into the game with a relatively higher level of "hairiness" to top the previous combat adventure. In fact, you may have to envoke the third rule—there's nothing wrong with improving a story with a little imagination so you can stay in the competition. It's like the old adage, "The first guy in doesn't stand a chance."

The other rules of the game cover sportsmanship and spectators. Storytellers are encouraged not to whisper, and no one is deliberately excluded from listening. A lot of interested spectators sit in or eavesdrop on the main event. The old heads in the group are amused and are nearly always sporting enough not to call "foul" when the entertainment level of an anecdote far exceeds its factualness. In such contests, more experienced flyers automatically apply a 50-percent-discount factor for bar talk. The yarn spinners themselves accept each other's tales with more than a little skepticism.

Exchanges of accounts rivaling the exploits of Rickenbacker, Lindbergh, Tunner and James only sound believable to the novice spectators in the crowd. For bar-room entertainers the one-upsmanship is a continuously expanding spiral of aeronautical feats, the actuality of which would probably have ended the war before most of the FNGs finished grade school.

Unfortunately, the game can have a looser: the unsuspecting young aviator who listens to these anecdotes of aerodynamic agility and doesn't know how much is exaggeration. This flyer is eager, but knows he's inexperienced, and up to this point he has been a strong supporter of sticking to the book. He performs his job the way he was taught and does his part to keep the mission moving. But when he gets around a couple of older and bolder airlifters who have either survived a few "hairies," or learned how to play "war story" very well, he stands a chance of receiving some inflated ideas about what man and machine can actually do.

When the game is in full swing, and the FNG is sucked in, the earlier, less dramatic, stories seem simple and almost routine compared with the follow-on fantasies. Some tales have become classics and are recycled with minor variations, thereby reinforcing the lesser experienced flyer's learning. "After all," he reasons, "I'm just as good as those guys, but I know I can learn from their experiences." What he doesn't understand is that frequent undampened exposure to war stories has conditioned him to accept things that are a bit beyond the truth.

The resulting combination of false beliefs and notions can eventually inspire a young troop to try some maneuver that exceeds the true capability of the aircraft and its pilot. After all, the bar talk made it sound easy and acceptable.

The message for new guys is: develop skepticism early. If you hear an interesting idea at the bar, remember good sportsmanship, but try and get a chance to ask the proponent to tell *everybody* about it sometime—like at the next aircrew meeting. If he politely declines, apply the 50-percent-discount rule as a minimum.

And for avid "war story" players, remember: nobody wins a bull session. While rehashing old exploits can strengthen your self-image and possibly build pride in the profession, the game can also have a looser—that young, uninitiated aviator who believes too much of what you say and ends up making a dumb decision.

—adapted from *Interceptor*

There's more to being a copilot than raising the gear, you're also the . . .

Second-In-Command

I took the extra tenth of an hour of copilot time this leg," Captain Mel Cohen remarked as he passed the Form 781 to his right-seater.

Lieutenant John Valdez studied the figures for a moment. "Looks good to me. I don't like to take any more 'CP' or 'AC' time than I have to."

"Building time for the airlines, John?"

"No, not really, but flying copilot seems so darn useless and aux pilot is even worse."

"I used to feel that way, too, but I've logged almost as much copilot and 'AC' time in ten years as I have 'FP' and 'IP'. Believe me, the copilot is an important crewmember . . ."

"Crew bus is here," interrupted Sergeant O'Toole, the engineer.

"I'd like to hear some evidence to prove that the copilot is all that important," challenged the lieutenant as the crew boarded the blue bus.

The heavy haulers followed the normal post-mission routine for an enroute stop, ending with the day's final bag drag to their "Q" rooms. Thirty minutes later, the two pilots were seated in the O'Club dining room waiting for their supper.

by Capt James P. Coe
Associate Editor

"Well, I'm still ready for you to tell me why you couldn't get along without a copilot," John bantered.

"First off, you get an English lesson. The prefix 'co' comes from the Latin word 'com,' meaning with. The copilot is flying *with* the pilot, an assistant pilot you might say."

"Great! You and I both know there isn't much of a future in being an assistant anything for long."

"That's probably true," continued Mel. "So you'll upgrade to AC after you have enough flying experience. But there's a lot more to assisting the pilot than what's spelled out in the MAC Regs and Tech Orders."

"Sure," John scoffed, "If the AC ever gets sick or has a heart attack, I get to be the big hero and save the airplane."

Consciously dragging out his soap box, Mel persisted, "Assisting the pilot covers a multitude of possibilities. For example, there's the classic war story about the C-130 crew who had all the hydraulics shot out on a combat mission. The controls were so hard to move that it took both pilots working together to make any real changes in aircraft attitude. In addition, the guy in the right seat handled the radios and checklist while the AC and engineer figured out how to make a safe landing. The crew worked as a team and got the handicapped Herk on the ground in good enough condition that everybody walked away from it. That guy is a classic example of copilot indispensability if I ever heard of one."

The lieutenant frowned. "You're still talking emergencies and unusual situations. Let's face it, when I go out on a line mission I'm not really all that responsible for anything important. I mean, I don't sign for the airplane or have the job of moving the mission. If I raise the gear and flaps when I'm told, do the checklists when requested, and don't step on my tongue when I press the mike button, then I'm a 'good copilot'."

"There's more to copiloting than that," replied Mel. "Those seemingly mundane jobs are important, and doing them well will get you through an average mission—if everything goes as planned. But there are crucial times when the AC shouldn't be left alone to make all the decisions. You have to be his advisor, supporter, and sometimes a devil's advocate.

Couldn't some accidents be caused by copilot error?

"Think of the aviation accidents you've heard about that were labeled 'pilot error.' Couldn't some of them just as easily have been called *copilot* error?"

"I suppose so," answered John. "Like the clowns that splashed the 727 into Escambia Bay 'cause nobody was watching the altimeter and the copilot wasn't making the required altitude calls."

"That's right, but what about the more subtle decisions—even moral judgments?"

"Moral judgments? C'mon, Mel, you mean keeping the rest of the crew out of the 'off limits' bars?"

"No, no," the captain chuckled. "Let's take one thing at a time. FARs, 60-16 and MAC regs lay a lot of responsibilities on the pilot-in-command. As copilot you are just far enough removed from the responsibilities and decisions to be objective, but still concerned. You can follow up on everything the crew does from flight planning to after-landing checklists and make sure that it's done right. Of course, you have to be tactful when checking on another crewmember's work or you may get a reputation as a nit-picker, but that's better than ***having been*** a great guy because you let something 'slide' to avoid a fuss.

"Also, I know it's a relief not to have responsibility for a mission when the going gets rough. You don't have to make the really difficult decisions, but you'll have to live (or die) with the ones the AC makes. Say you have a tricky flight with several enroute stops in high-density air traffic areas. At the weather briefing, the forecaster talks about thunderstorms all over the Northern Hemisphere, but three out of five of your destinations are forecasting VFR. Then during preflight, you discover that the radar is written up for not giving a clear 'picture' beyond 20 miles in flight.

"Fixing the radar will generate a home-station departure delay—and a hassle with maintenance for sure. It's going to be a judgment call for the AC. You think the radar should be fixed. Do you speak up?"

John looked puzzled, "I don't know. It would depend on the AC. I'd tell *you,* but if I was flying with 'Bear' Brown, I might just keep my mouth shut."

"That's the answer I expected," the older pilot affirmed. "Sometimes being a good copilot takes courage. You owe

it to yourself, the pilot—even an overbearing one like Brown—and the rest of the crew to express your opinion. If you have misgivings about the safety of an operation, speak up. There's a lot to be said for longevity."

"You're right," agreed John, "but how do I get anybody to listen to me?"

"Credibility."

"Oh sure. The credibility rating of a lieutenant copilot is usually a negative number."

"It doesn't have to be," countered the captain. "Even as a young copilot, folks will take what you say seriously if they view you as a professional at what you do. You don't have much experience now, but there's nothing keeping you from having lots of technical knowledge. You're already aware of what you need to know to get through stan-eval written tests and check rides. But that's just a good start. You should devote some time to exploring the other aircraft Tech Orders and regs about scheduling, loading and such. I learned quite a bit as a young copilot by asking 'old head' engineers and loadmasters what may seem like dumb questions. They took me under their wings, so to speak, and proved to be a terrific source of valuable information—some were even a little flattered that a pilot would show a sincere interest in their job.

"And you've got to know the mission. If the loadmaster asks what the ETA is for the next stop you should be able to tell him without fumbling through the mission kit. Also, just because you've never been to an airfield doesn't mean you should be ignorant about it. You need to check the pubs and restrictions even more closely than an experienced AC, because you will be the safety monitor on the way in and out of the airport while the guy in the left seat does the flying."

"Okay, okay," pleaded John, "I get your point."

"I'm sorry if I've been preaching at you, but good copilots are a pet subject of mine."

"I couldn't tell," teased the lieutenant.

"Anyway, keep in mind what I told you and you'll be better prepared for the really tough situations, if and when they come up."

"Like what? Declaring 24-hours crew rest at Hickam and getting away with it?"

There's a lot to be said for longevity.

"Maybe, but there are more challenging ones than that which need advance consideration. They usually involve head-to-head confrontations between you and an aircraft commander, often over regulations or on judgment calls. They're the moral issues I mentioned earlier. You may have to go to a higher authority to resolve the problem and that's where having fortitude, knowledge and credibility really pays off.

"For instance, what are you going to do some morning when a very senior AC shows up for a flight smelling like a used bottle of rare scotch, looking bad, and probably feeling worse? Do you try and carry him through the mission? Or should you refuse to fly with him the same as you would a bad landing gear? No matter what you do, *somebody* is going to come up a loser.

"Or what about a hair-raising tactical mission with an 'FEAC' who likes to fly the low-level routes at 200 feet, 'just for a challenge?' Do you ask him to pull it up a little? What about reporting him to the ops officer?"

The younger pilot gave a shoulder shrug and pursed his lips. "Well, I don't feel I should 'rat' on a fellow pilot. On the other hand, I don't want to end up facing an accident board—or worse."

Captain Cohen nodded, "I struggled with the same dilemma for a long time. But a while back, I read an article about an airline crew that didn't report an intoxicated captain and ended up riding with him to their deaths. That cinched it for me. I have my own mental list of situations I won't go along with, and you should too."

"There's one thing I can't figure out, Mel, how come nobody ever talks about this kind of stuff when you're going through training?"

"Well first off, they probably don't have time. And your experience is so low then that you may not even know what questions to ask, let alone understand the answers. But that's just my guess," admitted the Captain.

"I suppose you're right. Anyhow, here comes the waitress with our steaks—they look good."

"All this talking has made me thirsty, John. How about a cold one with dinner?"

"Sounds good, but I insist on buying."

"Thanks, copilot."

"You've earned it, boss!"

GLOBAL NOTES

Starlifter Crew Logs Assist to Downed Airman

Enroute from Hickam AFB, Hawaii, to Travis AFB, California in their C-141A, 1st Lt Ronald McElroy and crew were asked to help locate a downed airman. The United States Coast Guard supplied coordinates of the crash site and the crew soon spotted a plane in the ocean. After checking the fuel available, they descended to a lower altitude and began a search for possible survivors.

The pilot, who was the only one aboard the ill-fated light plane, was spotted bobbing precariously in a one-man raft and his position was immediately reported to Hickam. In the Starlifter's cargo compartment, the loadmasters set up to drop a larger life raft to the floating flyer. The first drop was unsuccessful, but the second raft inflated properly. By this time a freighter had been contacted and was steaming toward the scene. For their efforts the C-141 crew earned an "assist" in saving the downed airman.

Standing left to right: TSgt Cecil Clark, MSgt Tony Grant, SSgt George Kaim, 1Lt Ron McElroy, 1Lt Scott Lovenbury. Kneeling: SSgt Fernando Guerrero and TSgt Michael Horn.

Give The Men A Medal

Maj Robert W. Harsha and Lt Col William C. Paquin, the first winners of MAC's new Safety Award for Excellence in Airmanship, were recently presented the Air Medal for their courageous recovery of a CT-39 aircraft when one engine and the entire electrical system failed in flight. For details see "Good Show" in the January 1980 *TMF*.

Wing's Top Two Fly 10,000

In September 1979 Colonel John A. Doglione, Commander of the 375 AAW, Scott AFB, completed 10,000 hours of accident-free flying. Two months later, the Wing's Vice Commander, Colonel Jack B. Compton, also reached the 10,000-hour milestone. We know of no other airlift wing in which both the commander and vice commander have achieved more than 10,000 hours of accident-free flying.

Only 71 MAC aircrew members reached the 10,000-hour milestone in 1979. It's an achievement that reflects many years of safe mission accomplishment. *The MAC Flyer* salutes Colonels Doglione and Compton and all other high flying time awardees, for their exemplary career flying safety records.

MILITARY AIRLIFT COMMAND

EXCELLENCE IN AIRMANSHIP

From left to right: Sgt David L. Mangone, LM; A1C Scott A. Hathaway, LM; Sgt David L. Fisher, FE; Capt Robert M. Gee, AC; Capt Douglas A. Kempf, FP; 2Lt Paul C. Beck, CP; SMSgt Henry G. Stone, Jr., IFE (not shown: Lt Col Robert V. Woods, IP).

Captain Gee and crew. On 12 March 1980 the Starlifter crew from the 15 Military Airlift Squadron, Norton AFB, California, departed Clark AB bound for Singapore and Diego Garcia. Thirty minutes out of Tengah RSAFB, Singapore, they began an experience that sounds like an outline for a C-141 systems quiz.

First, illumination of the number-two-hydraulic-system-suction-boost-pump light led to turning off that system which normally powers the gear, flaps and other niceties aboard the Starlifter. The scanner poured three gallons of fluid into the reservoir before it became visible in the sight gauge. Before SMSgt Stone, the engineer, could start trouble-shooting, the red liquid again disappeared from the system. With Sergeant Fisher again filling the hydraulic system, Captain Gee decided to turn back toward Clark where maintenance was available.

While the Starlifter was in the turn and descending, number three engine flamed out. After one airstart was tried, the scanner reported fuel streaming from the engine.

With malfunctions building up quickly, the aircraft commander decided to divert immediately to Singapore, the closest suitable airfield. The descent went well until the crew tried to manually lower the gear. Although the nose wheel came down and locked, the main gear dropped only a few inches and stopped. After several efforts to pry the main bogies down, it remained impossible to insert the gear pins. Negative and positive G-forces were put on the aircraft but the gear still indicated unsafe. SMSgt Stone suggested turning on the number-two-hydraulic-pump switches in an effort to alleviate the apparent hydraulic vapor lock which was holding the main wheels up. Accepting the risk of damage to numbers one and two engines, Captain Gee decided it was their best chance. When the system was activated, the pressure gauge flickered momentarily and the main gear free-fell. The crew pried them down a little further and put in the gear pins. The subsequent landing was as uneventful as could be expected without the availability of normal brakes or nose wheel steering.

Captain Gee and crew are awarded the MAC Safety Award for Excellence in Airmanship for their timely and knowledgeable handling of multiple serious in-flight emergencies resulting in the undamaged recovery of a valuable aircraft with no injury to themselves or their 26 passengers.

THE CO

Tu-134 "Crusty"

Roughly equivalent in design, size and appearance to a C-9 Nightingale, the Tupolev Tu-134 serves the Russians and many of their satellite countries as a medium-range transport aircraft. Characterized in appearance by a T-tail and two turbofan engines mounted at the rear on either side of the fuselage, the 134 also comes in an A-model which is nearly seven feet longer and has a greater range and cargo capacity. Both normally carry a crew of three (two pilots and a navigator), plus two flight attendants. Seventy-two passengers can be accommodated in the mixed-class version of the A-model, 80 in the economy-class configuration.

In addition to a formidable array of radios and navigation gear, the Tu-134s have an automatic flight control and landing system which is reputed to permit approaches down to less than 200 feet in automatic or semi-automatic modes. Although the landing gear appears to be a very conventional tricycle arrangement with all wheels retracting rearward (the mains fit into fairings built into the wings), designers claim that the airplane can be operated from earthen runways.

The 134A has a max takeoff gross weight of 103,600 pounds, can carry up to 31,800 pounds of fuel, and will

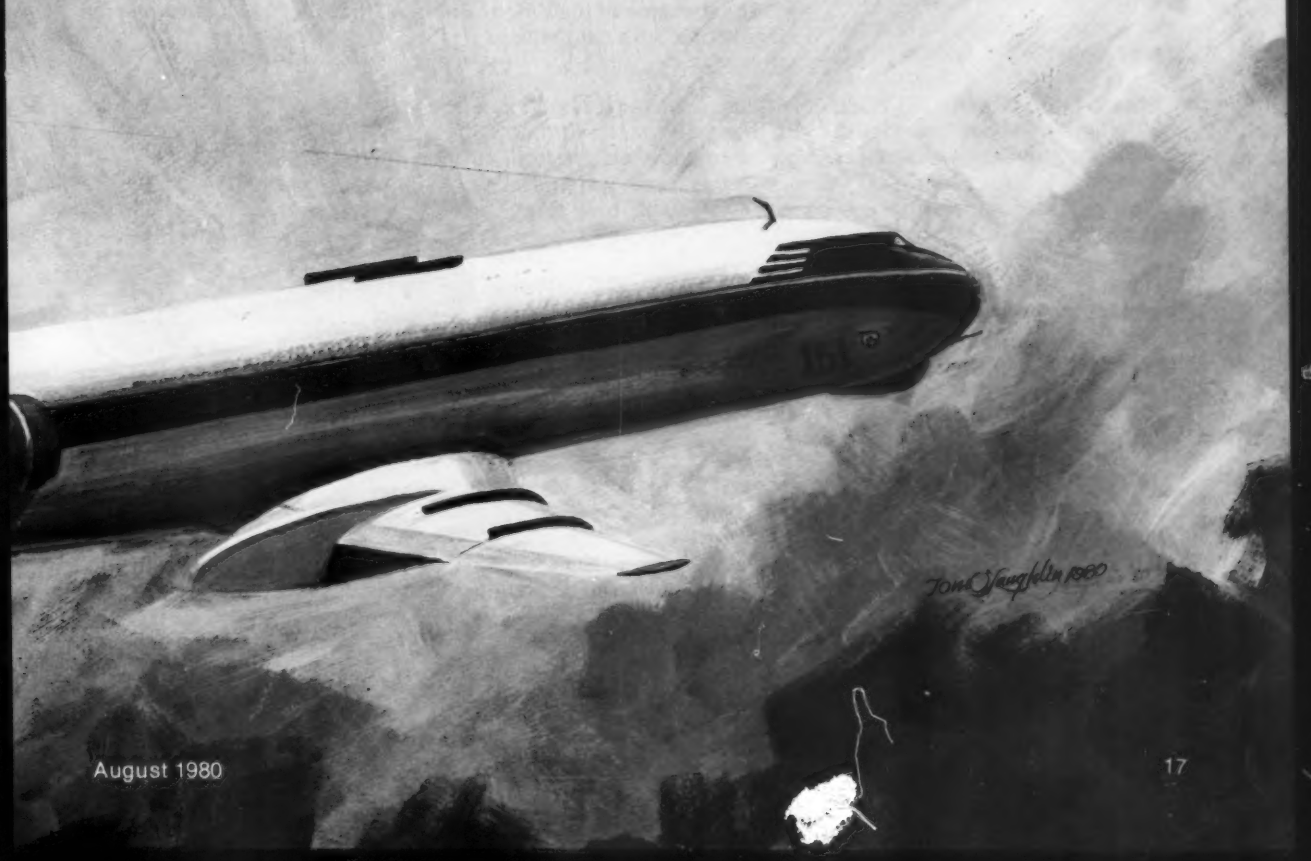
MPETITION

travel nearly 2,000 nautical miles with an 8,000-pound payload. Max-cruise speed at 36,000 feet is 469 mph.

Although the Tu-134 in its various versions apparently is primarily a passenger or cargo airliner, some models feature an ominous-looking glazed nose resembling the front end of a WW II B-17 bomber, along with a "possum belly" under-nose radome. Other models in the series have a conventional streamlined nose radome.

Carrying the NATO code name "Crusty," the Tu-134 made its debut in the fall of 1964, and it has a design life of 30,000 flying hours. At last count, around 200 of the 134-series transports were in service with Aeroflot. Although there is a strong resemblance between the "Crusty" and MAC's "Nightingales," no similarity seems to exist between the uses or missions of the two aircraft types. In fact, there is no evidence that Ivan has any special aircraft dedicated to aeromedical evacuation like Uncle Sam does. Even so, the Russians do have in the Tu-134 and 134A an aircraft which—with some modification—could be adapted for that purpose much as the "off-the-shelf" DC-9 was.

It is important to note that although Aeroflot and the Soviet Military Transport Aviation branch (VTA) have separate bureaucratic organizations, Aeroflot is under the command of a senior Soviet Air Force officer and its airplanes are an important part of the overall Russian airlift picture. There are no major military transports (including helicopters) that aren't also used in civilian service, and Aeroflot airplanes can readily be transferred to the VTA when necessary. This ability of both the Air Force and Aeroflot to use identical aircraft types, such as the Tu-134, provides a built-in reserve of nearly 400 transports for military operations under "emergency" conditions.



Ludicrous Onloads

Over the years, the folks at Lockheed have come up with many significant developments in aerospace engineering. These breakthroughs required the utmost in calculating skill, and we have gathered a sampling of some of their more cogent computations concerning the C-5 Galaxy. These little known tidbits were published in the *Galaxy Service Letter* written by those whimsical wizards at Marietta, Georgia.

Because the Galaxy was born and bred in the fair southland, and since the Arachis Hypogaea (peanuts to us "good ol' boys") are among the South's most famous exports, it's important you know the following information: The C-5 can carry peanuts—bushels and bushels of peanuts—depending upon the type:

*unshelled-Virginia ..... 10,682 bushels
*unshelled-Runner ..... 8,393 bushels
*unshelled-Spanish ..... 7,833 bushels
*shelled (Georgia, grade A) .. 158,631,184 individual peanuts.

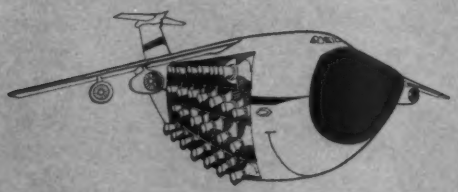
If you developed a headache from considering all that data on peanuts, this might help: The C-5 can carry 328,301,674 aspirin tablets. Now, don't you feel better?

The cargo compartment of the C-5 (121 feet long, 19 feet wide, 13.5 feet high) is large enough to hold an eight-lane bowling alley.

The distance of the Wright Brothers' first flight was less than the length of a C-5's cargo floor.

The C-5 can also haul 3,222,857 tortillas. Never one to let a taco go unturned, the engineers looked into the matter a little further. As a result of a weekend research session they discovered that tortillas come in numerous varieties, compositions, and weights. The following table shows the C-5 capacity for some of the typical tortilla types:

Type Tortilla	Oz/Doz	C-5 Capacity
Masa Harina (Corn Enchilada)	14.0	3,222,857
Masa Trigo (Flour) Enchilada)	18.75	2,406,400
Masa Harina Taco	7.75	5,821,935
Masa Trigo Taco	23.0	1,961,739



It can carry 76,216 bottles of wine, or pack away 277,263 12-ounce cans of your favorite beverage.

If anyone feels the urge to take exception to any of these amusing statistics, please sit down until the urge goes away. --Ed.

I'm a firm believer in using helicopter performance charts to plan sling missions, but they can't tell you that much if the weight of the load is an . . .

Unknown Quantity

by Major Alan D. York
Associate Editor

Nick Conti and I stepped outside the Udorn Officers Club after a leisurely breakfast and were hit between the eyes by the heat. It was going to be another scorcher. Even though the sun had barely cleared the tops of the aircrew hooches behind the club, the temperature and humidity were already building like a freshly stoked furnace. I could smell smoke from the burning rice paddies that would later form a haze and settle over the steamy landscape. Not even a hint of a breeze stirred the sultry air—a real Siamese sauna.

One of the subjects at the breakfast table earlier was the F-105 that had gone down about 20 miles northwest of the base the day before. We overheard someone say the Thud itself augered into a recently drained rice paddy after its engine flamed out for no apparent reason. Luckily, the pilot ejected and was recovered safely by the local base rescue folks. Accident investigators were anxious to recover enough wreckage to try and find out what went wrong. The Thai farmer who owned the paddy was equally anxious for the debris to be cleared away so he could get on with the yearly

ritual of burning the rice stubble in preparation for the next planting.

After clambering aboard the step van, we made our way to the flight line on the other side of the runway. Dust billowed up alongside the van, and without a breeze it hung in the air and drifted in through the open windows and doors as we bounced along the perimeter road. It was as fine as talcum powder and when combined with the heat and humidity made the weather feel much more stifling.

Sure enough, by the time we got to work, the fighter wing folks had already called our H-3 squadron requesting help in recovering the engine. Nick enjoyed sling-load work, so he volunteered to fly the mission—which meant that, because I was his brown-bar copilot at the time, I automatically volunteered as well. Like so many experienced helicopter pilots at that time, Nick had a lot of flying time in both H-21s and H-19s, so over the years he had developed a healthy respect for the power limitations of helicopters under high density altitude conditions.

After preflighting our aircraft, we sat in the small air conditioned operations shack waiting for our briefers. They were supposed to get in around noon and the control center insisted we wait for them so they could talk to us before we flew out to the crash site. While we were cooling our heels in ops, I pulled out my performance charts and also checked the latest weather, especially the pressure altitude and temperature, which was steadily climbing outside as we waited for the "fast movers" to arrive.

Finally, along about 1400, a crusty lieutenant colonel swept into the room followed by three other officers in flight suits. The colonel was obviously in charge; he was the only one wearing a tan, 1505 uniform, an outfit rarely seen in Thailand in 1966. After introductions, the colonel, who I thought looked like an aging Rex Riley, unfolded a map which pinpointed the crash site. "A ground party has secured the site and is waiting for us," he said. "Any questions?"

This man was all business, but I couldn't help feeling that, at least in this case, he was

If you can't do it now, then how do you expect to do it tomorrow?

operating with incomplete knowledge of the situation. He never asked us if we could actually pick up the wrecked engine with our helicopter. He apparently assumed that a chopper that size could lift anything. So Nick came out with the most obvious query: "How much does the engine weigh?"

"A J-75 weighs about 7,500 pounds," replied the colonel, without batting an eye.

"Uumm," Nick mused with a skeptical squint and furrowed brow.

Then, one of the other officers in the group spoke up bravely. "Sir, that's with the afterburner, but according to the ground team, the engine came apart and the only thing in one piece and accessible is the combustion section and part of the compressor section. Probably weighs between 3,000 and 5,000 pounds," he concluded.

I was busily doing my copilot thing, going through the charts with the different weights being bandied about when Nick announced, "All we can do is go out and try it and see what happens." This seemed to satisfy everyone so we all headed for the aircraft.

It was the hottest part of the day by the time we settled the big twin-engine helicopter onto the rice paddy, shut it down and began attaching the cables to the load. A lot of mud had been sucked into what was left of the engine when the F-105 plowed into soft earth. Search as I might, I couldn't seem to find a chart that converted cubic feet of mud into pounds, so all previous estimates of the weight were now completely out the window. With the cables securely attached, we hovered over the burned out engine. When the flight mech had it hooked to the sling underneath the fuselage, we began slowly raising the helicopter. The cable pulled taught, and the rotor rpm began drooping toward 100%. The marshaller out front was still motioning us to come up, but the load wouldn't budge. Engine temperature climbed into the five-minute-limit range and the torque approached the 94% maximum power we had available under these weather conditions. The transmission was screaming and the rotor wash blew every hat off those standing nearby with a hot blast of hurricane-force wind. Every hat that is, except for the one perched on the head of the light colonel in tans, his must have been glued on. It reminded me of the old westerns where the hero's white hat is never dislodged even during the worst

saloon brawl.

The marshaller finally signaled us that the load was about six inches above the ground. Now the trick was to move forward enough to gain translational lift. Nick eased forward on the cyclic ever so gently, but we could feel the load drag as we descended. In that heat, any forward movement of the cyclic caused a descent. Nick lowered the mud-caked engine to give our straining helo a rest and squinted out the windscreen. He was looking for any sign of a breeze we could turn the aircraft toward to give us the extra lift we needed. "Maybe a knot or two out of the southwest by the looks of those trees," he surmised, turning the helicopter into that phantom zephyr which only experienced chopper pilots can detect. The load came up a few more inches—maybe just enough so we could move forward without it dragging the ground. Very slowly we eased forward and were moving about five knots when the dangling engine hit a small dirt dike surrounding the rice paddy. We were coming to the end of the five-minute limit for our engine temperatures, so Nick repositioned the load in the center of the paddy and released the cables. Hovering over to the adjacent paddy, we landed and shut it down. The fighter folks sauntered over and asked what the problem was. When Nick told the colonel we couldn't get enough forward speed to start flying, expressions of disdain crept over their faces. "But you had it off the ground," the Thud pilot pressed. "I don't see the problem." Truer words were never spoken. Nick told the gathering that we could come back early the next morning and pick it up with no difficulty because the temperature would be a lot cooler then. With that the colonel made a statement that's forever etched in my memory. "I don't see how that's going to make any difference," challenged the fighter jocky with undisguised irritation. "If you can't do it now, then how do you expect to do it tomorrow."

"Trust me, colonel, I guarantee we'll be able to lift it right out of here in the morning," pledged Nick.

Clearly not satisfied with the way things were going, the fast movers slowly shook their heads and offered several alternative solutions to our problem, none of which we found acceptable. On the flight back, Nick reminded me of the many times he had been asked to do something with a helicopter by people who simply didn't understand either the capabilities or limitations of vertical lift. "Some people think helicopters can do all kinds of strange things," Nick mused, "It's as if they believe we aren't subject to the same laws of physics as anything else that flys. This colonel," he continued, "is obviously a very intelligent and professional fighter pilot who probably knows that on a hot day, his takeoff distance will increase because of higher density altitude. He probably takes the temperature and pressure altitude into consideration if he is landing at a high altitude base too. But, for some reason he doesn't think the same thing applies to a helicopter."

Unfortunately the people who could have learned the most weren't there.

"Don't you think he was probably just trying to be helpful when he suggested we use two H-3s hovering side-by-side with the external load hung between them?" I couldn't resist adding with a wink.

"Yeah," Nick smiled. "When I heard that, I knew it was time to call it quits for today." I couldn't have agreed more.

None of the fixed-wingers volunteered to go out with us the next morning. We never found out why, although the fact that we told them they might have to ride back from the crash site in a truck could have had something to do with it. They were probably as dubious about the helicopter's capabilities as we were about their well-intentioned but hare brained schemes to jury rig the load between two helicopters. Anyway, at first light, with the air still reasonably cool, we again positioned our H-3 over the mud-encrusted F-105 engine, hooked it to the sling and smoothly brought it to a hover 20 feet above the rice paddy—with power to spare. Nick eased forward on the cyclic and gained translational lift without losing an inch of altitude. It was an excellent demonstration of what a helicopter, even an old C-model, could do under the right conditions, and with a savvy old "rotor head" at the controls.

Unfortunately, the people who might have learned the most from the density altitude display were not there. They had reached the verdict and dismissed the jury before all the evidence was in.

Mishap with a Moral

Problems, Priorities and Crew Coordination

It was a routine round robin, a "milk run," for Thumb 08. The big Boeing tanker subbing as a passenger hauler had several enroute stops on its itinerary and then a return to home station. An early morning takeoff went without a hitch, and so did the first stop on the schedule. All the earmarks of a pleasant day's worth of flying were there—and then everything started turning sour before the crew even realized what was happening.

Planned flight time between stops number one and two was just over 20 minutes, and ATC cleared the Thumbbird for radar vectors direct to the destination VOR at flight level 190. The first hint of trouble came with the crew's request for a lower enroute altitude due to pressurization problems. Things would have been hectic enough on such a short takeoff-to-landing segment, but now the crew had the temporary burden and distraction of running an additional checklist. At any rate, center re-cleared the KC-135 to descend to 15,000 feet and proceed to the destination fix for a high tacan/ILS approach to runway 06. Additionally, the controller advised that, "Destination ASR and VOR are temporarily out of service for preventive maintenance."

"How about an enroute descent to a PAR instead, then," the pilot handling radio calls fired back. Moments later his request was granted, along with a descent clearance to 5,000 feet. Following a non-radar handoff, destination approach control cleared Thumb 08 for further descent to 3,100 feet and instructed the pilots to enter holding at a point some ten miles southwest of the airfield.

The next clearance, given by a trainee, under the supervision of a fully qualified controller, was, "Descend and maintain 2,700 feet for the tacan/ILS runway 06 approach." Without knowing Thumb 08's whereabouts, the novice had cleared the tanker to the minimum sector altitude and had also used improper terminology to describe the approach. ("Tacan/ILS, runway 06" is not a valid low-altitude approach at this airfield—the controller should have said "Tacan, runway 06.")

Excessive radio conversation with the approach controller, along with his improper terminology, the crew's unfamiliarity with low-altitude instrument procedures in a radar environment and the need to brief a new approach during a continuing descent were beginning to take their toll in the form of crew distraction. In addition, the

copilot was trying to squeeze in an overdue call to the destination command post. Instead of concentrating on flying the approach safely, half-a-dozen second-class preoccupations were consuming the crew's attention. The entire crew, including the navigator and an extra pilot, was so caught up in extranneous activities that no one realized the airplane had reached an altitude which no longer guaranteed terrain or obstacle clearance. Making matters worse, the pilot even failed to reset the minimum altitude index on his radar altimeter to the height above touchdown (HAT) for the airfield. As the descent continued, the instrument remained pegged at a useless setting of minus 20 feet, which effectively prevented it from offering its warning of Thumb 08's increasingly perilous proximity to terra firma.

Almost as if to insure that the steadily descending tanker would not enjoy a last-minute save by its hapless, harried crew, a fire warning light for the number three engine suddenly flickered on. Still busy copying a weather report on VHF from the command post, and now totally overloaded with the task of handling the fire warning emergency procedures, nobody on the crew noticed the altitude until it was too late. The aircraft plowed into the tree-covered terrain at a descent rate of 3,000 feet per minute.

Analysis

One of the real disadvantages of flying an airplane is that when something goes wrong, you can't stop where you are, call a time out and analyze your problems. An airplane just keeps moving on until it either lands safely or crashes. Even so, as long as an airplane still has its critical lift and control surfaces intact and possesses a reasonable modicum of power, there is usually very little reason for anything less than a safe recovery. Although an aircrew doesn't have the luxury of pulling over to the side of the road to check things out when they go awry, they have a number of options available as long as their airplane is still flying. Whether the crew makes a safe recovery depends primarily on two factors: how well they manage their priorities and how effectively the individuals work together as a coordinated team.

Number one priority has got to be—basic as it sounds—keeping the airplane under control and clear of obstacles. If you let a flyable bird run into something that terminates its flight abruptly, everything else immediately becomes academic. The emergency procedures checklist you were busy with, the troubleshooting you accomplished, the clearance you managed to copy, or any of the dozens of other things you might have been doing will mean very little if your airplane is permitted to crash in the process. And, as you can easily see from the "war story" in this article, preoccupation with items of secondary importance can lead to a smoking-hole finale in broad daylight with a plane that was still airworthy right up to the moment of impact.

A Suggestion or Two

We've given you a bad example and pointed out some of the lessons to be learned from it; now it's only fair to offer an ounce or two of prevention for your consideration.

It seems that most of the time when crewmembers get into trouble and bad things happen, one of the factors is that they were behind the airplane. Any time the crew is behind the power curve and acting in an uncoordinated fashion, even simple problems or challenges can exact a toll out of all proportion to their importance or severity. One way to keep ahead of the airplane is to carefully work out scenarios in your mind for different problems and have a preplanned idea of just what you would do should one or more of those difficulties arise. For example, an aircraft commander should always have a plan in mind that includes the critical duties he'll assign each crewmember during a specific condition or emergency. Likewise, other crewmembers should have thoughts stored away as to how they can best help out the aircraft commander if a difficult situation arises—especially if he doesn't ask for help but clearly needs it.

On airplanes with more than one crewmember, every person is there for a reason—to help carry out a safe and successful flight. Very little, short of catastrophic failure of a major structural aircraft component, can prevent a really heads-up, professional aircrew team from achieving that goal even when the chips are down.

DEJAVU

Hickam AFB, Hawaii
(elevation 13 feet)

Hickam AFB shares runways with Honolulu International and is one of six airfields on the Hawaiian Island of Oahu. High terrain and busy traffic in the air and on the ground are the greatest hazards for crews transiting this major Pacific aerial port.

Located on the southern shore of the island, the airport is bounded on the west, north, and east by high mountains. Additionally, the city of Honolulu is located six miles east of the airport. These circumstances of geography dictate that missed approaches, departures, and circling maneuvers be conducted southeast of the airport for terrain avoidance and noise abatement.

The airfield is served by a variety of instrument approaches. Runways 08 Left and Right are both over 12,000 feet long and are normally used for arrivals. Backing them up is another precision runway, 04 Right. Final approaches for runways 08 pass over Barbers Point NAS, eight miles west of Hickam, with only *altitude* separating the traffic patterns.

Once on the ground, the crew is faced with a maze of taxiways and intersecting runways that must be traversed to get to the military ramp at the west end of the field.

Aircrews transiting this tropical paradise should be especially careful not to allow the beautiful scenery to divert their attention from the high density traffic and hazardous terrain. —Adapted from ISD-Q6-360

On short final to 22 left, note that runway 26R/08L crosses three runways, 22 short, 22 left and 22 right.

Hickam's ramp is to the left as you approach runway 08L for landing.

High terrain east of the field is apparent in this photo taken on short final to runway 04R.

A fast return to a high-altitude airport becomes a deflating experience for the Pompous Pilot.

C.R. TERROR

C.R. unwrapped a stick of gum and stuffed it into his mouth, rolled the paper carefully into a tiny ball and tossed it into the ash tray. "Care for a chaw?" he asked, extending the open package toward his long suffering right-seater.

"No thanks, Major. By the way, I've noticed you chewing a lot of gum since we left Lima this morning."

"Trying to quit smoking," responded the Portly Pilot. Sam's mouth gaped so wide in amazement that his boom mike nearly disappeared. Sergeant Torque, sitting at the engineer's panel, choked on a swallow of coffee. In the back of the Starlifter, Ty Downs was so shocked by the exceptional interphone announcement that he nearly dropped a stack of used inflight-meal trays in the lap of a comely young lady bound for a job in the U.S. Embassy at La Paz.

"Take it easy, m'lads," soothed the Master Manipulator. "It's just for this leg of the trip. I want to abate the effects of nicotine somewhat before we land at South America's J.F.K. Last time I was in there I was semi-hypoxic from the moment I stepped off the airplane—miserable experience."

Sammy chuckled and turned his attention to the miles-to-go on the INS. "It's about time to start down, Boss," he reminded the Corpulent Commander.

"Right you are m'boy. Descent checklist please, Sergeant Torque."

The flight engineer read the scroll checklist and then set about readying the C-141 for an uneventful depressurization above 10,000 feet as they approached J. F. Kennedy Interna-

tional, the highest major airport in the world. "Better put on the nose hoses," reminded the professional panel man. The crew got on oxygen and checked in at C.R.'s command.

With the sunny blue skies of the dry season prevailing over the "Tibet of South America," the Terrorific airlifters were treated to an unobstructed panorama of incredible beauty as their C-141 descended over the Andes Mountains and Lake Titicaca toward the two-mile-high city. C.R. briefed a monitored approach with his long suffering sidekick doing the instrument flying on the VOR procedural track and the Magnificent Major taking over at minimums for the landing. Sam's work was flawless and C.R. flew a passable final to a smooth touchdown.

After shutting down the engines in the chocks, C.R. asked, "What's our onload?"

"Set-up sheet says one pallet of cargo, a drilling rig and 12 pax. We're supposed to take them to Santiago today, and on to Punta Arenas tomorrow. Says here the drilling rig belongs to NOAA."

"Belongs to Noah? Must really be old," joked C.R.

"It might be if that's it parked over there," observed Sam as he pointed to a mud-encrusted duce-and-a-half truck with a large derrick folded on its bed.

"Well, let's go see if our 'King of the Load' can get the monster aboard," commented the Flatulent Flyboy. He started to bound toward the flight-deck ladder, but found himself short of breath and slowed his pace.

The ace airlift crew surveyed the derelict driller, and after much animated conversation with its owners, agreed to try to get it aboard the C-141. Or as Sergeant Downs put it, "If they'll knock about a ton of dirt off that thing, sir, we might be able to coax it into the cargo compartment without damaging anything important."

C.R. made the command decision, "Load 'em up, Sarge," and headed slowly for the airport terminal to check on the weather and the bill of fare at the restaurant.

An hour and a half—and 20 stops to catch his breath—later, the Hypoxic Honcho struggled back onto the flight deck and poured himself into the left seat. After sucking on 100% oxygen for a few minutes, C.R.'s fingernails finally began regaining their normal pink color. As the Addled Aviator's brain cleared, he became concerned about the loading operation. Connecting his oxygen hose to a yellow walk-around bottle, he descended to the cargo compartment.

He was greeted by a scene of mixed pathos and humor. Sam and Torque were stretched out in passenger seats taking oxygen while Sergeant Downs supervised three energetic locals who were putting tie-down chains on the truck. The loadmaster was alternately giving instructions to the loading crew and breathing from his own walk-around bottle. "A tableau of human strengths, weaknesses and adaptability," the Fraudulent Philosopher mumbled under his green mask.

Before long Sergeant Downs was closing the petal doors, and the cockpit crew manned their stations. With their scanner, Sergeant Crescent, posted outside, C.R. pushed the starter

button for the number one Pratt & Whitney bifurcator and the rpm tape inched its way upward. Flipping on the ignition switch, however, failed to cause the customary ascent of the EGT tape. Fearing a hot start, Sammy called, "Stop Start."

"Heiferdust!" blustered the Pompous Pilot. "That probably means we'll be stuck in this hypoxic haven until they bring us a new engine."

"I don't think it's quite that bad, sir," assured Sergeant Torque, "In fact, *you* can fix the problem."

"Do I look like an engine mechanic?" retorted the Rotund One breathlessly.

"No sir, but at this high pressure altitude we should use fuel enrichment. The switch is on *your* overhead panel," the flight engineer added with a knowing grin.

Looking a bit sheepish, C.R. bleated, "Enrichment on. Let's get out of this place."

The Starlifter now sprang to life at the Ace of Airlift's command and the mission soon blocked out of its parking spot and taxiied to the departure end of runway 27.

". . . and it was mighty nice of them to route us out over the lake instead of into the mountains," C.R. commented as he concluded his departure briefing. A few seconds later the Starlifter's fan jets roared at takeoff power and C.R. released the brakes. The gray-and-white cargo ship accelerated smoothly down the runway and after an extended ground run lifted easily into the air. "Gear up, flaps up, checklist," directed the Field Grade Fumbler as he switched on the autopilot and turned his attention to removing his oxygen mask.

"Duck!" shouted Sammy as a white missile flashed by his windscreen. Suddenly the Starlifter lurched to the right and the crew was shocked by a loud chug from the starboard side of the aircraft. The number four engine rpm started sinking as the EGT climbed toward the red line.

"Shut down number four, get a clearance back in for landing, give me some numbers," machine-gunned the Able Aeronaut from the left seat.

Sammy pulled the T-handle for the right outboard and started the checklist items while C.R. swung the C-141 into a tight left turn toward the field and eased the power back on number one. "I'll fly an engine-out approach to runway 09. Threshold will be 136 knots, plus ten on-accounta this thin air," briefed the Ace of Airlift. In seconds the 141 was on two-mile final, configured, and slowing toward approach speed. By the time the Starlifter was in the flare, Sergeant Torque managed to get a word in edgewise, "Major, I think you had better consider tire speed—"

The expert engineer's warning was interrupted by the thump of the main wheels meeting the concrete. Touchdown was immediately followed by a series of pops and thuds as the aft main tires disintegrated and threw pieces of tread about the wheel wells. With his adrenaline surging at an all-time high, the Portly Pilot mashed the brake pedals to the floor and the C-141 screached to a stop in a cloud of gray smoke.

"Sammy, feather number three, then everybody out!" instructed C.R. as he pulled the fire handles for numbers one and two turbofans. With the help of Sergeant Crescent, Ty Downs directed the passengers out the crew entrance door and gathered them near the upwind edge of the runway. The flightdeck crew followed close behind. Only the crackling sound of cooling metal and the low hiss of the fuse plugs letting air out of the forward main-gear tires punctuated the silence. The great gray-and-white lady of airlift settled ignominously onto her wheel rims.

"Well that really rips it!" exclaimed the Breathless Buffoon snatching off his flight cap and throwing it to the ground in disgust. "A high-altitude birdstrike topped off with blowing all the tires. What rotten luck! It'll be a month before we get outta here."

"Take it easy, Boss," soothed Sammy in an effort to calm his irate AC. "Look at the bright side of things. We'll be able to enjoy the pleasures of this unique city."

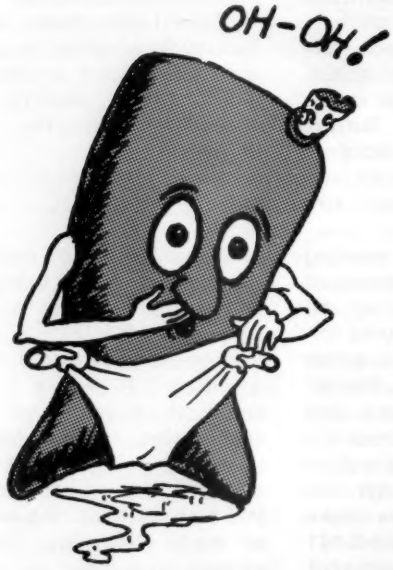
"Yeah, like continuous hypoxia," grumbled C.R. sarcastically.

Undaunted, Sam continued, "We can go see the ruins at Tiahuanaco by the lake, and shop for Llama skins."

"I guess you're right, m'lad," admitted C.R. with a hint of a smile. "I could use some new seat covers for my Jag. And there's one more good thing," added the Irrepressable Imp, "at this altitude it will take only half as many Terrorific 'Tinis to improve my spirits."

QUICK STOPPERS

Bladder Problems



There was no way to purge the two 50,000-gallon-capacity fuel bladders at the exercise site, so they were flushed out with water and left to vent for 24 hours prior to being rolled up. Unfortunately, it was raining when the bladders were rolled and placed in plywood boxes lined with plastic bags. After crating was complete the boxes were left out in the rain. Next, the containers were shipped out on a C-130 as general cargo with no paper work describing what was really inside, namely JP-4 and water. During climb out the residual fuel inside the bladders seeped out of the containers and quickly filled the airplane with noxious and very combustible fumes. The Herk crew wisely went on oxygen and diverted into a nearby airfield where they made a safe recovery.

JP-4 and water don't mix, so flushing the fuel bladders with H_2O was only a partial solution to the problem, and one which should have definitely been identified to the crew along with a properly completed Dash-2. Improper preparation for air shipment and failure to document the hazardous cargo was a serious oversight and needlessly created a high accident potential aboard the C-130. Leaving the fuel bladders out in the rain so water could get inside was a little different from an oversight—it was downright fatuous.

Ballast Bash

While the C-5 accelerated for the initial takeoff on a local training mission, the aircrew heard a loud noise emanating from the cavernous cargo compartment. Such an ominous and unusual sound prompted the pilot to reject the takeoff and send a scanner down to investigate. To his chagrin, he found that the two 10,000-pound ballast pallets he thought were locked into their forward position when he checked them during his preflight had moved swiftly aft. Running off the set of rollers, they slid rearward along the bare floor, stopping about halfway down the cargo compartment. The pallets which are ladened with concrete slabs, are used to help maintain a better center of gravity when flying an empty Galaxy around the flag pole with a light fuel load. Two pallet stops were broken as the heavy ballast careened rearward. The restraint rails and cargo compartment floor sustained minor sheet metal damage.

A closer check during preflight could have prevented this close scrape.

Aw, Chute!

An Army CH-47 was offloading equipment on a drop zone and had just landed from a hover when a cargo parachute was pulled into the aft rotor, causing the rotor system to dephase and the large blades to mesh. Almost immediately thereafter the helo caught fire and was destroyed.

—Adapted from *Flightfax*

Air Breaks

Just as the C-141 was rotating at its computed 113 KIAS, the control yoke suddenly began moving rapidly forward and aft. The instant the aircraft was airborne, however the erratic movement stopped. As the gear and flaps were retracted, the frightening flutter started again momentarily, then ceased. Upon reaching cruise altitude the wary crew engaged the autopilot and altitude hold, whereupon the airplane pitched up violently, gaining 1,000 feet before the crew could regain control and recover. No warning lights or flight control abnormalities were in evidence. By this time the aircraft commander had seen quite enough and diverted smartly back into the departure airbase. Once safely on the ground, all air was bled out of the hydraulic lines running to the elevator pack, control dampers and elevator actuator. All hydraulic systems subsequently checked out okay.

C-130 Extinguishes Fire Bottle

After the C-130's engines were started, the primary loadmaster rolled the fire bottle a safe distance beyond the right wingtip while the instructor flight engineer disconnected the external power cart and moved it out of the way to the left. Then along with the two loadmasters he climbed aboard for the taxi out. On the initial left turn out of the parking spot, the pilot noticed the nose wheel steering seemed to be skipping slightly, but he continued the turn. Ground control piped up to say transient alert reported the Herk's left main gear had just run over a fire bottle. The pilot stopped the aircraft and deplaned a scanner to have a look. Sure enough, they had somehow missed removing a second fire bottle located close to the left side of the fuselage. It could not be seen from the cockpit during preflight or taxi, but at least three crewmembers outside probably walked very close to it as they boarded the left-hand crew entry steps. Fortunately, the only damage to the aircraft was a cut left main tire. The crewmembers who missed spotting the bottle suffered from acute mortification. And what of the ill-fated fire bottle? Well, transient airplanes won't have that ten-gallon CB extinguisher to kick around anymore.

Phantom Refueler

While cruising over the Mediterranean, the Starlifter's loadmaster began experiencing a burning sensation in his eyes from unidentified but definitely strong fumes in the cargo compartment. Directing the passengers to don their oxygen masks, the loadmaster notified the pilot of the potentially dangerous situation after which he went on oxygen himself. The AC leveled the C-141 at flight level 220 and the engineer went to maximum air flow on the flight deck and turned off the floor heat. The loadmaster and scanner were unable to pinpoint the source of the fumes, so an emergency was declared and they made a safe landing at a nearby airfield. Inspection of the cargo revealed the fumes were coming from an F-4 center-line external fuel tank which had residual fuel sloshing around inside. The loadmaster was taken to the hospital for overnight observation and later released for flight.

AFTER DEADLINES

RUNWAY FOAMING IS AVAILABLE AT ONLY EIGHT BASES since 1 July. Only Travis, Altus, Dover, Ramstein, Hickam, Torrejon, Clark, and Yokota have the capability to foam their runways for emergency recoveries. USAF's decision was based on a comprehensive analysis of emergency landings which showed no appreciable difference in aircraft damage with or without foam.

THE ULTIMATE TIME HACK is continuously available from the U.S. Naval Observatory Master Clock. Dial autovon 294-4950 and you'll hear a voice announcement giving both Eastern Time and Universal Time.

FIRST HELICOPTER SQUADRON SEEKS CREWMEMBERS for its CH-3E and UH-1N aircraft. Stationed at Andrews AFB, Maryland, the squadron provides special airlift as part of the 89 MAG. Pilots, flight engineers and maintenance people are all needed. If you're interested, call the squadron at autovon 858-5131.

ARRS LOGS 101 SAVES IN MT. ST. HELENS DISASTER. After 17 days, 568 sorties and 932 flying hours, the AF Rescue Coordination Center closed its books on emergency operations in response to the volcano's traumatic eruption. The final mission was flown on 4 June 1980 by helicopters and crews from the 304 ARRS, a MAC-gained AFRES unit from Portland.

STRETCHED STARLIFTERS ARE STARTING TO SHOW SAVINGS on long-haul routes. Flying nonstop from Beale AFB, California, to RAF Mildenhall, U.K., recently, a C-141B carried cargo that would have formerly required two C-141As. Additionally, its aerial refueling capability allowed it to skip a stop for gas that an A-model would have required. Heading west from Travis AFB, another Stretched Starlifter completed a 15,000-mile flight to seven Pacific bases. The B-model can fly nonstop from Travis all the way to Clark AB, PI, in 16 hours by using its air-to-air refueling capability. The trip would take at least 24 hours and two stops in a C-141A. Modification of MAC's Starlifters is ahead of schedule, according to Lockheed, and will be complete by mid-1982.

USAF WELL DONE AWARD PRESENTED TO MAC CREW. Captain Raymond F. Haile and his C-141 crew from the 30th Military Airlift Squadron, McGuire AFB, were recently selected for the Air Force Well Done Award. Colonel Leland K. Lukens, USAF Director or Aerospace Safety, wrote the crew saying, "Your calm appraisal of the situation, judgment, and skillful handling of a serious emergency reflect a high degree of proficiency. Your performance is a credit to the United States Air Force." (See "Global Notes," *TMF*, July 80, for details.)

☆ U.S. GOVERNMENT PRINTING OFFICE: 1980-665-120/4

HEY GUYS, CHECK OUT OUR MADRID MARSHALLER!